REMARKS

This paper is responsive to the Office Action mailed May 6, 2004 and the telephone interview held with both the Examiner Kumiko C. Koyama and the Primary Examiner Diane I. Lee on June 7, 2004 (Summary mailed by Examiner on June 16, 2004). Amendment, reexamination and reconsideration of the application are respectfully requested.

The Office Action

In the Office Action mailed May 6, 2004:

claims 1-4, 6, 8-13, 22-27 and 29-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,813,010 to Okamoto et al. ("Okamoto") in view of U.S. Patent No. 5,276,616 to Kuga et al. ("Kuga");

claims 5, 7, 18 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and further in view of U.S. Patent No. 5,905,811 to Shiiyama ("Shiiyama");

claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and further in view of U.S. Patent Nos. 6,345,764 to Knowles ("Knowles");

claims 15 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and further in view of U.S. Patent No. 4,903,229 to Schmidt et al. ("Schmidt");

claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and Schmidt and further in view of U.S. Patent No. 6,064,397 to Herregods et al. ("Herregods");

claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Shiiyama; and,

claim 21 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and further in view of U.S. Patent No. 6,336,124 to Alam et al. ("Alam").

The Present Application

By way of brief review, the present application is directed to a system and method for automatic and semi-automatic document indexing. For instance, the invention is useful where a large document is scanned to generate an electronic

version of the document. For example, the invention is used to generate a table of contents or an index for the electronic version of the document (for example, see FIG. 1). A custom sub-section delimiter definition that is related to the document currently being processed can be generated. The delimiter definition includes a list of one or more characteristics of a delimiter (page 5, lines 13-30).

For example, a review of the document may indicate that chapter headings in the document are rendered in an 18-point font size at a location that is centered horizontally on a page and is two inches below the top of the page. In that case, a first sub-section delimiter may be defined as any text located two inches from the top of a page and rendered in an 18-point font size.

Subheadings in the exemplary document might occur anywhere on a page but are rendered in a 16-point font size with underlined characters. Therefore, a second sub-section delimiter for the document might be defined as underlined 16-point text.

Once one or more sub-section delimiters are defined, the electronic version of the document is searched to find occurrences of text corresponding to the defined sub-section delimiters. Information regarding each occurrence is used to create an index or table of contents for the document. For example, for each occurrence of 18-point text located two inches from the top of a page, the text string associated with the occurrence is recorded in association with a text location of the occurrence. For example, the text "CHAPTER ONE" was found rendered in 18-point font two inches from a top edge of page 3 of the document. Therefore, the text "CHAPTER ONE" is associated with a page number, such as page 3, and is recorded and included in the index or table of contents. The text location information may be recorded in the form of a hypertext link. Similarly, the text and text location associated with each occurrence of underlined 16-point text is recorded and added to the index or table of contents. For example, the text location recorded may include a page number as well as an indication of a location within the page. Again, the text location information may be recorded in the form of a hyperlink.

The Cited References

In contrast, the primary reference of the Office Action to Okamoto allegedly discloses a method and system for document processing using a heading <u>rules</u> storage and retrieval system for generating documents with hierarchical logical

architectures. A heading decision section is implemented in the system for checking heading candidates that are extracted by a heading candidate extraction section according to heading rules stored in a heading rule dictionary and for deciding whether the heading candidate is a heading. Also, a document architecture decision section is implemented in the system for checking the heading decided by the heading decision section according to document architecture rules stored in a document architecture rule dictionary. The architecture decision section is for determining the heading as satisfying the document architecture rule as a true heading, and the heading not satisfying the document architecture rule as being a false heading (Abstract).

In a segmentation process of Okamoto, a line return code and a space code or segmentation symbols such as "...", ";", ",", or ":" are determined as segmentation codes (column 5, lines 20-23).

The Office Action now asserts that disclosure of these line return and space codes and segmentation symbols in conjunction with a segmentation sentence length or character count are disclosure of the delimiter definition recited in the claims of the present application. The Applicant respectfully disagrees. However, even if the line return, and/or space code or the segmentation symbols and character count are considered to be delimiter definitions, in order to anticipate or suggest the subject matter of the present application, it is respectfully submitted that Okamoto would have to make an index entry for each occurrence of a line return and a space code or segmentation symbol associated with an appropriate character count.

Even if, as asserted by the Office Action, the logical architectural storage of Okamoto is an index, Okamoto does not make an entry in the logical architecture storage for each occurrence of a line return code and a space code or a segmentation symbol.

Instead, the detection of a segmentation code defines a segmentation sentence and begins a long process of testing to determine if the segmentation sentence includes a heading. For example, a segmentation sentence length is measured by counting characters. If the measured value falls within a predetermined value (e.g. 40 characters), the sentence is determined as having the possibility of being a heading sentence (column 5, lines 25-29).

If the segmented sentence is determined as having the possibility of being a

heading sentence according to the measured number of characters, a heading extractor decides whether a character string constituting the segmented sentence is registered in a heading dictionary (column 5, lines 30-35). If there is a match between the sentence and an entry in the heading dictionary, the sentence is determined as being a heading candidate (column 5, lines 35-41) heading candidates are further processed to determine if they are heading words (column 5, lines 42-49). If the sentence segmented by the document processor does not correspond to any heading word registered in the dictionary, or if the segmented sentence does not coincide with any heading rule, although it is determined as being a heading candidate word, the segmented sentence is determined as being a sentence rule not included in the heading words rule (column 5, lines 50-56). Sentences determined as being a heading word and sentences determined as not being a heading word undergo still further processing (e.g., column 5, line 57 – column 6, line 47). When all the processing determines a sentence is a heading, a document architecture decision section of the system of Okamoto determines the document architecture of the heading according to rules (see tables 1-4). The determined logical architecture of the analyzed sentence is stored in a logical architecture storage as depicted in FIG. 6A-6E. The logical architecture storage (e.g., FIG. 6B) does not include occurrences of line returns and space codes or segmentation symbols. Therefore, Okamoto does not disclose or suggest searching a document to find occurrences of items corresponding to a defined subsection delimiter and creating an index from found items corresponding to the subsection delimiter occurrences.

Furthermore, it is respectfully submitted that the logical architecture of Okamoto is not an index as the term is used in the present application. For example, the index or table of contents **114** of the present application includes text from the document indicating for example, chapter titles, chapter numbers, appendix names and so on. Other indexes may include for example, key words associated with a document or portions of a document. It is respectfully submitted that the logical architecture of Okamoto does not include text from the document indicating the subject matter of the respective portions of the document. For example, FIG. 6B does not include the heading text "1. Introduction". Instead, FIG. 6B simply shows that a chapter heading exists at line number 3 and includes architectural information about the chapter heading indicating that the chapter heading includes a numeric

portion, a punctuation portion and a heading. However, the logical architecture of Okamoto (FIG. 6B) does not include the actual numeric, punctuation and/or heading text information.

For the foregoing reasons, Okamoto does not disclose or suggest the subject matter of the present application.

It is respectfully submitted that none of the secondary references cited by the Office Action cure the deficiencies of Okamoto.

Kuga allegedly discloses a system for creating an index of textual data. In the system, a dictionary stores sets of specialized words particular to a field of knowledge related to the textual data. An entry selecting module selects as index entries only those strings which match one of those specialized words and notes the locations of each occurrence of each index entry in the text. A printer outputs the selected index entries together with their occurrence positions (Abstract).

The Office Action relies on Kuga for disclosure of generating an index for a document with found items corresponding to subsection delimiter occurrences. However, it is respectfully submitted that the dictionary or list of specialized words particular to a field of knowledge of Kuga is not a delimiter definition as the phrase is used in the present application. As used in the present application a delimiter definition is a description of aspects or characteristics of text, not specific text strings. While it is true that text can be used as an aspect of a delimiter definition (for example, the word --chapter-- can be an aspect or characteristic included in the delimiter definition), and that an occurrence corresponding to the delimiter definition might include such text (for example, --Chapter IV: New Hope-- might be an occurrence of a delimiter definition including the word --chapter--) the desired text string itself (e.g., Chapter IV: New Hope) is not a delimiter definition as the phrase is used in the present application. Furthermore, having to generate a list of every word that is desired to be included in an index or table of contents is just the sort of task the subject matter of the present application is directed at avoiding (e.g., page 1, lines 26-30).

Shiiyama discloses an imager and an OCR function. However, Shiiyama does not disclose or suggest generating a human-readable index or table of contents. Instead, it is respectfully submitted, the index information referred to by Shiiyama is included in a search file (column 3, lines 49-53). The search file is used by a search program and not directly by a user. A search word is inputted in

accordance with an instruction of the search process (**S31**). The input search word is analyzed into a search key suitable for the searching process (**S32**). The search key is compared with the search file in the external storage **4** (**S33**). When an index that is matched with the search key is found, document address information corresponding to such an index is returned to the application side (**S34**) (column 4, lines 1-8).

As further evidence that the index or search file of Shiiyama is not for use by a human user, Shiiyama does not disclose or suggest displaying the search file to the user. Instead, the display **6** of Shiiyama is for displaying the information inputted from the keyboard/mouse **5**, image information inputted from the image scanner **1** or the like, a progress of the process, and a result of the process (column 2, lines 14-18).

Knowles discloses a portable hand held worldwide web access terminal for accessing HTML encoded documents located on the worldwide web. The terminal includes a bar code symbol reader in a hand-supportable housing for reading bar code symbols encoded with information, such as URLs, for use in accessing HTML encoded documents stored in information servers connected to the internet and supporting the TCP/IP standard (Abstract). However, Knowles does not disclose or suggest using a bar code or a data glyph as a delimiter for use in generating a table of contents or index as disclosed and claimed in the present application.

Schmidt discloses a forms generating and information retrieval apparatus comprising a compact disc for storing machine readably a plurality of form files and magnetic media for storing machine readably a plurality of information files. Schmidt is unconcerned with generating an index for a document.

Herregods discloses a method for creating multiple documents having identical background regions and page-specific information regions. Herregods is unconcerned with generating an index or a table of contents for a document.

Alam allegedly discloses a computer implemented method of converting a document in an input format to a document in a different output format. The method generally includes locating data in the input document, grouping the data into one or more intermediate format blocks in an intermediate format document, and converting the intermediate format document to the output format document using the intermediate format blocks. Alam suggests a linked table of contents and/or an index maybe generated during the conversion process. However, it is respectfully

submitted that Alam does not provide enabling disclosure for generating a table of contents or index.

Telephone Interview Summary

The participation of the Examiner Ms. Kumiko C. Koyama and the Primary Examiner Ms. Diane I. Lee in a telephone interview with the Applicant's representative Mr. Thomas Tillander on June 7, 2004 is noted with appreciation. In that interview, **claims 29 and 30** were discussed. Mr. Tillander reviewed the Applicant's interpretation of the phrase --delimiter definition-- (for example, see page 5, line 17 - page 6, line 3 of the present application). With regard to **claim 29** Mr. Tillander submitted the assertion that Okamoto and Kuga do not disclose or suggest that determining a subsection delimiter consists of indicating at least one of a font size, a font, a text location and a specific point within a document. The Examiners indicated that they were interpreting the phrases font, text location, and specific point within a document rather broadly. Various amendments were proposed and discussed. The mark in the check box (g) and the comments on the continuation sheet of the Interview Summary mailed June 16, 2004 to the contrary not withstanding, Mr. Tillander came away from the Interview with the understanding that it <u>was</u> agreed that amendments similar to replacing "font" with --font style--, "text location" with --text location coordinates-- and a "specific point within a document" with --specific point coordinates within the document-- would render **claim 29** allowable.

With regard to **claim 30**, Mr. Tillander came away from the Interview with the understanding that it was agreed that replacing --symbol-- with --predetermined machine readable symbol-- would render **claim 30** allowable.

Claims 29 and 30 have been amended in accord with the proposed language.

Claim 1 was also briefly discussed. The Examiners indicated that the meaning of the phrase --subsection delimiter-- was unclear and that they would consider clarifying remarks and/or amendments. In this regard, the attention of the Examiners is again directed to the discussion of delimiter definitions throughout the specification and in particular on pages 5 and 6 of the present application. Additionally, **claim 1** has been amended to recite determining a subsection delimiter definition including at least one delimiter characteristic.

The Claims are Not Obvious

Claims 1-4, 6, 8-13, 22-27 and 29-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga. However, **claim 1** has been amended to recite determining a subsection delimiter definition including at least one delimiter characteristic, searching a document to find occurrences of items corresponding to the defined subsection delimiter and, generating an index for the document with found items corresponding to the subsection delimiter occurrences.

In explaining the rejection, the Office Action asserts or implies that the combination of counting characters associated with segmentation symbols such as "...", ";", "," and ":" is analogus to disclosure of a delimiter definition. The Applicant respectfully disagrees. However, even if the combination of line return codes, space codes, segmentation symbols and character count is considered to be a delimiter definition, Okamoto does not disclose or suggest generating an index (or even the logical architecture of Okamoto) with found items corresponding to the subsection delimiter occurrences. Instead, as pointed out at the bottom of page 2 and first full paragraph of page 3 of the present Office Action, occurrences of the combination of line return, segmentation code and character count go through many other checks, tests and determinations (column 5, line 30 - column 6, line 43). Only a small subset of the occurrences of the combination of a line return, segmentation code and character count cause an entry to be made in the logical architecture of Okamoto. Therefore, Okamoto does not disclose or suggest generating an index for a document with found items corresponding to the subsection delimiter occurrences as recited in **claim 1** of the present application.

Additionally, Okamoto, is unconcerned with generating an index. Okamoto is concerned with generating a logical architecture (e.g., FIG. 4a - FIG. 4d). This logical architecture is allegedly useful in providing features of a word or document processing program (column 1, lines 35-43, column 7, lines 58 -column 8, line 6). However, it is respectfully submitted that the logical architecture is not an index. Therefore, it is respectfully submitted Okamoto is non-analogus art.

Furthermore, the Office Action stipulates that Okamoto does not disclose generating the index for the document with found items corresponding to the subsection delimiter occurrences. The Office Action relies on Kuga for this disclosure. However, it is respectfully submitted that Kuga does not disclose or suggest subsection delimiters or generating an index for a document with found

16

items corresponding to subsection delimiter occurrences. Instead, it is respectfully submitted that Kuga discloses a system for creating an index that includes a dictionary that stores sets of specialized words particular to a field of knowledge related to the textual data in a particular document. The system of Kuga searches the document for words matching those in the dictionary. When matches are found, index information regarding the matches is collected and stored. However, it is respectfully submitted that the dictionary of Kuga and its entries are not fairly characterized as a subsection delimiter. It is this laborious manual entry of search words, such as that required to create the dictionaries of Kuga, that the subject matter of the present application seeks to avoid (e.g., page 1, lines 26-30). As mentioned above, as used in the present application, a delimiter definition is a description of aspects or characteristics of text, not specific text strings. While it is true that text can be used as an aspect of a delimiter definition, (for example, the word --Chapter-- can be an aspect of a delimiter definition), and an occurrence corresponding to the delimiter definition might include such text (for example -- Chapter IV; New Hope-- might be an occurrence of a delimiter definition including the word --Chapter--), the desired string itself is not a delimiter definition as the phrase is used in the present application.

Additionally, it is respectfully submitted that there is no motivation in the art to combine the disclosure of Kuga with the disclosure of Okamoto. The Office Action says that it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Kuga to the teachings of Okamoto in order to quickly locate the index occurrence position of major subsection of the document and customized indexing particular for a particular user or field for faster or specialized use. However, it is respectfully submitted that this reasoning is forced and is based on impermissible hindsight.

Okamoto is concerned with providing software to improve document navigation while drafting a document (column 1, line 35) when the document includes logical breaks such as chapters or sections (column 1, lines 13-43) and is unconcerned with creating an index. Kuga is concerned with generating indexes in a uniform manner and prefers the dictionary of specialized words of Kuga "since the selection of index entries is made by referring to such a dictionary, differences in criteria for selection used by different operators can be prevented. Since a specialized dictionary is prepared and updated for each field, the knowledge for

generating an index is collected and shared by all the operators (Abstract). It is respectfully submitted that <u>there is simply no motivation for Kuga to replace the dictionary and searching algorithms of Kuga with searching for line returns and segmentation codes, counting characters associated with the segmentation codes and line returns and then processing those characters under the complicated set of rules displayed in table 1, table 2, table 3, table 4 shown in columns 3, 4 and 5 of Okamoto</u> and described in columns 5, 6 and 7 of Okamoto. Similarly, it is respectively submitted that there is no motivation in either reference, or the art in general, to use the system of Kuga to build the logical architecture of Okamoto.

For at least the foregoing reasons, **claim 1**, as well as **claims 2-8, 29 and 30**, which depend therefrom, is unanticipated and is not obvious in light of Kuga and Okamoto taken alone or in any combination.

Additionally, **claim 2** has been amended to recite determining a subsection delimiter comprises indicating at least one of a font size, a font style, a text string, a text location description, a predetermined machine readable symbol and a specific point coordinate within the document. It is respectfully submitted that no portion of the Office Action appears directed to explaining the rejection of **claim 2**. It is respectfully submitted that neither Okamoto nor Kuga disclose or suggest determining a subsection delimiter comprises indicating at least one of a font size, a font style, a text string, a text location description, a predetermined machine readable symbol and a specific point within a document. Kuga discloses searching for words from a dictionary. However, as explained above, it is respectfully submitted that such disclosure is not fairly interpreted as a subsection delimiter definition as recited in **claim 2**.

Furthermore, it is respectfully submitted that the amendments to **claim 2** are in keeping with the amendments to **claim 29** which were agreed to during the telephone interview of 2004 summarized above.

For at least the foregoing additional reasons, **claim 2** is not anticipated and is not obvious in light of Okamoto and Kuga taken alone or in any combination.

Claim 3 has been amended to recite determining a subsection delimiter comprises using a predetermined machine readable symbol representing a demarcation point on a printed version of the document as the subsection delimiter. It is respectfully submitted that the amendment to **claim 3** is in keeping with the amendment to **claim 30**, which was agreed to during the telephone interview of

June 7, 2004.

Additionally, it is respectfully submitted that no portion of the Office Action appears directed at an explanation of the rejection of **claim 3**. Furthermore, it is respectfully submitted that neither Okamoto nor Kuga disclose or suggest determining a subsection delimiter comprises using a predetermined machine readable symbol representing a demarcation point on a printed version of the document as the subsection delimiter.

For at least the foregoing additional reasons **claim 3** is not anticipated and is not obvious in light of Okamoto and Kuga taken alone or in any combination.

Claim 8 recites determining a subsection delimiter definition comprises displaying a plurality of document pages on a user interface, selecting at least one demarcation point on at least one of the plurality of pages and using the at least one demarcation point as the defined subsection delimiter.

It is respectfully submitted that no portion of the Office Action appears to be directed at explaining the rejection of **claim 8**. It is respectfully submitted that neither Okamoto nor Kuga disclose or suggest the subject matter of **claim 8**. In this regard, the attention of the Examiner is directed to FIG. 4, and, for example, related text on page 6, line 19 - page 7, line 8 of the present application.

For at least the foregoing additional reasons, **claim 8** is not anticipated and is not obvious in light of Okamoto and Kuga taken alone or in any combination.

Claim 9 has been amended to recite a document processor operative to automatically generate an index for a document from occurrences corresponding to a delimiter definition. The document processor comprising a document input device operative to provide an electronic version of a document, a document storage device operative to store the electronic version of the document, a delimiter searcher operative to search for and record text and location information regarding the occurrences corresponding to the delimiter definition within the electronic version of the document and a document divider operative to divide the document into subsections based on the recorded information regarding the occurrences corresponding to the delimiter definition.

Arguments similar to those submitted in support of **claim 1** are submitted in support of **claim 9**. Neither Okamoto nor Kuga disclose or suggest a delimiter searcher operative to search for and record text and text location information regarding the occurrences corresponding to the delimiter definition. Even if

Okamoto discloses searching for occurrences corresponding to a delimiter definition, Okamoto does not disclose or suggest recording text and text location information regarding the occurrences. Instead, it is respectfully submitted Okamoto discloses further processing text associated with occurrences of the combination of a line return, segmentation code and character count and recording document architecture information associated with the small fraction of occurrences that qualify for entry in the logical architecture by surviving a long series of rules checks (e.g., table 1, table 2, table 3, table 4, columns 3-5). For the foregoing reasons, Okamoto does not disclose or suggest a delimiter searcher for recording text and text location information regarding the occurrences corresponding to the delimiter definition as recited in **claim 9**.

As explained above, Kuga discloses searching for words from a list or dictionary of specialized words particular to a field of knowledge. It is respectfully submitted that the dictionary of specialized words of Kuga is not fairly characterized as a delimiter definition. Additionally, as explained above, Okamoto is non-analogus art and there is no motivation in the art to combine Okamoto and Kuga.

For at least the foregoing reasons, **claim 9**, as well as **claims 10-17**, which depend therefrom, is not anticipated and is not obvious in light of Okamoto and Kuga taken alone or in any combination.

Additionally, **claim 10** recites a delimiter designator module operative to communicate with the document processor operator through the user interface in order to generate at least one delimiter designation. The Office Action does not appear to provide an explanation for the rejection of **claim 10**. It is respectfully submitted that neither Okamoto nor Kuga disclose or suggest a delimiter designator module operative to communicate with the document processor operator through the user interface in order to generate at least one delimiter designation.

For at least this additional reason, **claim 10** is not anticipated and is not obvious in light of Okamoto and Kuga taken alone or in any combination.

Claim 11 has been amended to recite that the delimiter designator is operative to accept an indication of at least one of a font size, a font style, a text string, a text location description, a predefined machine readable symbol and a specific point coordinate within the document as a delimiter designation. The amendments to **claim 11** are in keeping with the amendments to **claim 29** agreed to by the Examiner's during the telephone interview of June 7, 2004. Arguments

similar to those submitted in support of **claim 2** are submitted in support of **claim 11**.

For at least these additional reasons, **claim 11** is not anticipated and is not obvious in light of Okamoto and Kuga taken alone or in any combination.

Claim 12 recites that the delimiter designator is operative to display a plurality of document portions on the user interface for the document operator to view while determining the at least one delimiter designation. Arguments similar to those submitted in support of **claim 8** are submitted in support of **claim 12**.

Claim 13 recites that the user interface is operative to receive demarcation point designations from the document processor operator and to deliver the demarcation point designations to the delimiter designator as delimiter designations. Arguments similar to those submitted in support of **claim 8** are submitted in support of **claim 13**.

For at least the foregoing additional reasons, **claims 12 and 13** are not anticipated and are not obvious in light of Okamoto and Kuga taken alone or in any combination.

Claims 22 and 23 have been amended in keeping with the amendments to **claim 29**, which were agreed to during the telephone interview of June 7, 2004, which is summarized above. **Claims 22 and 23** recite similar subject matter to that of **claim 2**. However, **claim 22** <u>does not</u> recite a subsection delimiter comprises a text string. **Claim 23** <u>does not</u> recite a subsection delimiter comprises a text string or a text location. Arguments similar to those submitted in support of **claim 2** are submitted in support of **claims 22 and 23**. Additionally, even if the words in the dictionary of Kuga are considered to be subsection delimiters comprising a text string, **claims 22 and 23** do not recite a text string. It is respectfully submitted that neither Kuga nor Okamoto disclose or suggest determining a subsection delimiter comprises indicating at least one of a font size, a font style, a text location description, a predefined machine readable symbol, and a specific point coordinate within the document.

For at least the foregoing additional reasons, **claims 22 and 23**, as well as **claims 24 and 25**, which depend respectively therefrom, are not anticipated and are not obvious in light of Okamoto and Kuga taken alone or in any combination.

Claims 26 and 27 depend from **claim 10** and have been amended to recite subject matter similar to that recited in **claims 22 and 23** in accord with the

amendment to **claim 29** agreed to during the telephone interview of June 7, 2004 summarized above. Arguments similar to those submitted in support of **claims 22 and 23** are submitted in support of **claims 26 and 27**.

For at least the foregoing additional reasons, **claims 26 and 27** are not anticipated and are not obvious in light of Okamoto and Kuga taken alone or in any combination.

It is respectfully submitted that **claims 29 and 30** have been amended in accord with the suggestions of the Examiners made during the telephone interview of June 7, 2004, and that the Examiners said that the suggested amendments would render **claims 29 and 30** allowable.

For at least the foregoing additional reasons **claims 29 and 30** are allowable.

Claims 5, 7, 18 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and in further view of Shiiyama.

Claim 5 depends from **claim 4** which depends from **claim 1** and is unanticipated and unobvious for at least that reason.

Claim 7 recites selecting an exemplary subsection title and using at least one recognized property of the exemplary subsection title as a subsection delimiter definition. The Office Action stipulates that Okamoto fails to teach selecting and exemplary subsection title, and using at least one recognized property of the exemplary subsection title as a subsection delimiter definition. The Office Action asserts that Shiiyama teaches searching for characters. The Applicant respectfully disagrees. However, even if Shiiyama does teach searching for characters, the Office Action does not assert, and it is respectfully submitted Shiiyama does not, disclose or suggest selecting an exemplary subsection title and using at least one recognized property of the exemplary subsection title as a subsection delimiter definition.

For the foregoing additional reasons, **claim 7** is not anticipated and is not obvious in light of Okomoto, Kuga and Shiiyama taken alone or in any combination.

Claim 18 recites defining a subsection delimiter wherein defining the subsection delimiter includes at least one of a document processor operator building a subsection delimiter from a list of predetermined potential subsection delimiter components, a document processor operator entering a subsection delimiter through keyboard keystrokes, entering a subsection delimiter by selecting symbols on a displayed portion of the electronic version of the document, and designating at

least one demarcation point on at least one displayed portion of the electronic document, to create a list of demarcation points to be used as a set of delimiter definitions. It is respectfully submitted that the Office Action does not assert that any of the references disclose or suggest this subject matter of **claim 18**. Additionally, it is respectfully submitted that Okamoto, Kuga, and Shiiyama do not disclose or suggest defining a subsection delimiter includes at least one of a document processor operator building a subsection delimiter from a list of predetermined subsection delimiter components, a document processor operator entering a subsection delimiter through keyboard keystrokes, entering a subsection delimiter by selecting symbols on a displayed portion of the electronic version of the document, and designating at least one demarcation point on at least one displayed portion of the electronic document to create a list of demarcation points to be used as a set of delimiter definitions.

For at least the foregoing reasons, **claim 18** is unanticipated and is not obvious in light of Okamoto, Kuga and Shiiyama taken alone or in any combination.

Claim 28 recites defining a subsection delimiter, wherein defining the subsection delimiter comprises at least one of building a subsection delimiter from a list of predetermined potential subsection delimiter components, performing statistical analysis on recognized characters to select characteristics that are most likely to be associated with subsection delimiters, entering a subsection delimiter by selecting symbols on a displayed portion of the electronic version of the document and designating at least one demarcation point on at least one displayed portion of the electronic document to create a list of demarcation points to be used as a set of delimiter definitions.

It is respectfully submitted that the Office Action does not assert, and Okamoto, Kuga and Shiiyama do not, disclose or suggest this subject matter of **claim 28**.

For at least the foregoing reasons, **claim 28** is not anticipated and is not obvious in light of Okamoto, Kuga and Shiiyama taken alone or in any combination.

Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and further in view of Knowles. In explaining the rejection of **claim 14**, the Office Action stipulates that Okamoto as modified by Kuga fails to teach that the delimiter searcher is operative to search for a defined delimiter comprising a symbol selected from a bar code and a data glyph. However, the

Office Action asserts that Knowles teaches a document containing bar codes.

It is respectfully submitted that Knowles discloses a document containing a bar code encoded with information such as URLs for using and accessing HTML encoded documents stored in information servers connected to the Internet and supporting the TCP/IP standard. Okamoto, Kuga and Knowles do not disclose or suggest a bar code or data glyph defining a delimiter for a delimiter searcher, or searching for a bar code or a data glyph as disclosed in the present application and recited in **claim 14**. Furthermore, there is no motivation in the prior art to combine the subject matter of Knowles with the subject matter of Okamoto and Kuga. The only motivation to do so is the subject matter of the present application. Therefore, it is respectfully submitted that the rejection of **claim 14** is based on impermissible hindsight. Reconsideration is respectfully requested.

For the foregoing additional reasons, **claim 14** is not anticipated and is not obvious in light of Okamoto, Kuga and Knowles taken alone or in any combination.

Claims 15 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and further in view of Schmidt. **Claim 17** was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and Schmidt and further in view of Herregods.

Claims 15, 16 and 17 depend from **claim 9** and are not anticipated and are not obvious in view of Okamoto, Kuga, Schmidt and Herregods taken alone or in any combination, for at least that reason.

Claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Shiiyama. However, **claim 20** has been amended to recite defining a subsection delimiter, wherein defining the subsection delimiter comprises marking a paper version of the document with at least one predetermined machine readable demarcation symbol prior to scanning the document. The amendment to **claim 20** is in keeping with the amendment to **claim 29** suggested by the Examiners during the telephone interview of June 7, 2004 summarized above. It is respectfully submitted that neither Okamoto nor Shiiyama disclose or suggest defining a subsection delimiter comprises marking a paper version of the document with at least one predetermined machine readable demarcation symbol prior to scanning the document.

For at least the foregoing reasons, it is respectfully submitted that **claim 20** is not anticipated and is not obvious in light of Okamoto and Shiiyama taken alone or

in any combination.

Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Kuga and further in view of Alam. **Claim 21** depends from **claim 1** and is not anticipated and is not obvious in view of Okamoto, Kuga and Alam, taken alone or in any combination, for at least that reason.

Telephone Interview

In the interests of advancing this application to issue the Applicant respectfully requests that the Examiner telephone the undersigned to discuss the foregoing or any suggestions that the Examiner may have to place the case in condition for allowance.

CONCLUSION

Claims 1-18 and **claims 20-30** remain in the application. For at least the reasons cited above, the application is now in condition for allowance. Accordingly, an early indication thereof is requested.

Respectfully submitted,

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